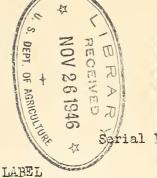
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Excerpt from a radio talk by

Excerpt from a radio talk by W. W. Vincent, chief, western district, Food and Drug Administration, U. S. Department of Agriculture, broadcast through KGO, San Francisco, and associated N.B.C. stations, June 18, 1931.



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HOW TO READ THE LABEL

## Mineral Waters

The Federal Notices of Judgment relate many actions instituted by food and drug authorities against mineral waters, many of which, in addition to being polluted, made curative claims for various diseases.

A number of these concern claims for radio activity and of therapeutic efficacy due to radium content of waters. The largest quantity of radio activity of a permanent nature found by the Bood and Drug Administration in any bottled water of natural origin is 0.270 millimicrogram of radium per liter of water. That is a tiny quantity. Now, according to the Council of Pharmacy and Chemistry of the American Medical Association, the minimum daily dosase of radio activity per day is set at 2000 millimicrograms of radium. Therefore, in order to get a minimum daily dosage of radio-activity from that water of natural origin which showed the largest amount, it would be necessary to consume 1957 gallons. Very few, if ary, domestic bottled waters on the market at the present time bear unwarranted references to their radio activity. When they do appear, prompt action under the food and drugs act quickly serves to bring about . . . a proper label revision; Statements with regard to excessive radioactivity have not alone been confined to our domestic waters. Numerous actions have likewise been taken against imported waters.

The therapeutic value of mineral waters is limited, and where you see therapeutic claims held forth for any particular water, just remember you have reason to believe only such limited statements as actually appear upon the bottle label.

Mineral waters fall into different classes. First, there are those lightly mineralized table waters which contain no dissolved ingredients of any therapeutic significance.

Second, those in which limistone or dolomitic limestone predominates. The limestone is held in solution by carbon dioxide. These are known as antacid waters.

Third, there is the vichy type, in which sodium bicarbonate predominates, known also as antacid waters. Generally these are referred to as of the soda type.

Fourth, waters in which common salt, sodium chloride, predominates, \[
We term them saline in character.

Fifth, those in which epsom or glauber salts, one or both, predominate. They are the laxative waters and are also of saline character.

Sixth, the chalybeate, or iron type. Dissolved salts of iron characterize them.

Seventh, the sulphur waters. Some form of dissolved sulphur represents the characteristic ingredient.

Now, some waters are artificially carbonated and you will find that the label indicates such artificial carbonation. Again, certain manufacturers add salts either to natural or mineral waters and where such salts are added, the labels will indicate the fact. Mineral waters may be true or artificial. If a true mineral water, the dissolved mineral constituents have resulted from contact with the earth through which the water has seeped or percolated. If an artificial mineral water, the mineral constituents have been added by man. There are a number of these latter upon the market. You will generally find them labeled under "\_\_\_\_\_\_brand Water" with qualifying statements indicating that various salts have been added.

The mineral constituents of the natural mineral waters vary considerably. Food and Drug Administration chemists have found as little as 25 parts per million of dissolved mineral matter in some commercial mineral waters, while as much as 20,000 parts per million have been found in others. This brings up the interpretation of chemical analysis which you sometimes see reported upon water labels or in advertising literature exploiting them. These are confusing to the layman and sometimes to other chemists. All chemists do not report analysis in the same form. Some report the mineral constituents in parts per million, some in grains per U.S. gallon and some in grains per Imperial gallon. If you remember that one grain per U.S. gallon is equivalent to a little over 17 parts per million, and one grain per Imperial gallon slightly exceeds 14 parts per million, it will serve to give you an idea of the relative amount of dissolved constituents. If you remember that certain purgative mineral waters contain as high as 4000 grains per gallon, or 68,000 parts per million of sodium sulphate (glauber salts), or magnesium sulphate (epsom salts), or both in combination, you will readily observe - by referring to the analysis given for many waters - that they are but very slightly mineralized.

Remember, now, bottled mineral waters have a proper place in commerce. Some people, for certain reasons, always prefer the same kind of drinking water and, when traveling, are able to secure exactly the product they want. Others, living in communities where the water is hard, may prefer a softer water and this is available in bottled waters. Again, some may prefer a carbonated water, and this is likewise available in bottled form. Where laxative, diuretic or antacid effects may be desired, there are certain waters available to you. Such mineral waters are not the only source of such essential mineral constituents as might be desired at the particular time. However, bottled waters containing such necessary minerals are available, and in convenient form for consumption.

As for mineral waters bottled at some famous springs to which people journey to take treatments which involve drinking the water, baths, rest, certain medical and hospital treatment, etc. - you cannot expect that drinking that water alone will produce the same beneficial results in your home that you might receive from a sojourn at the springs where you would get the other treatments mentioned.